



STAY HEALTHY ONBOARD GUIDE

DECEMBER 2023

Gastroesophageal Reflux

Managing Reflux with Smart Everyday Choices



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INTRODUCTION

Overview

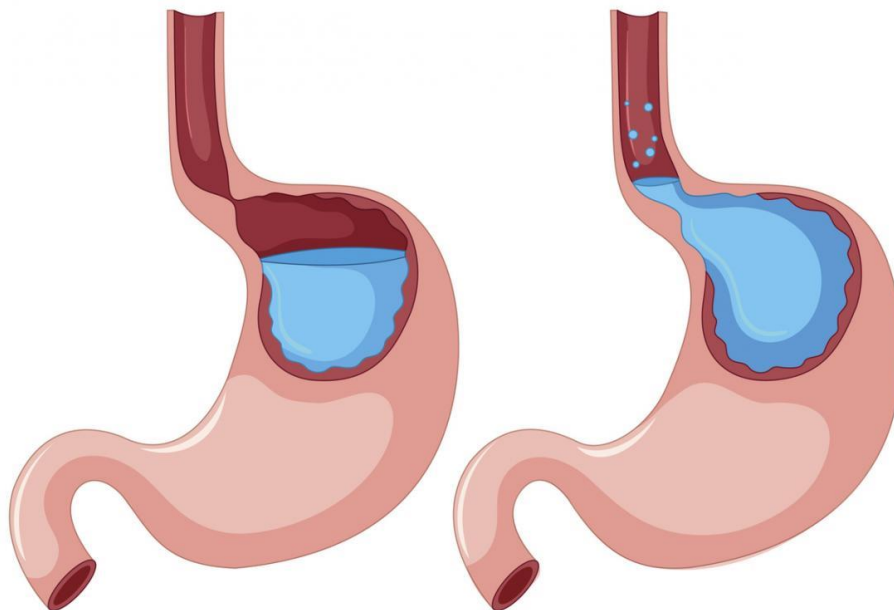
Gastroesophageal reflux (GERD) or acid reflux occurs when the contents of your stomach come back onto the oesophagus. Oesophagus is the tube that connects the mouth and stomach.

GERD represents a more persistent and serious condition where symptoms are being repeated and may lead to complications.

Some people may experience acid reflux occasionally, but when this happens repeatedly, it can lead to GERD.

Key Facts

- ❖ Globally, in 2019, there were approximately 783.9 million GERD cases, which is higher. compared to 1990, when GERD cases were 441.6 million. (Na Li et al., 2023)
- ❖ A recent study indicated that there is a high prevalence of gastrointestinal cases amongst seafarers, with the majority being GERD. (Sagar G. et al., 2021)



GERD RISK FACTORS

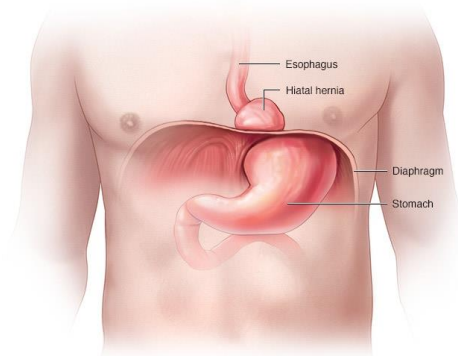
Several conditions can increase your risk of GERD. Some common risk factors include:

- **Obesity**

The extra weight on your body adds an extra pressure on the stomach, leading to more stomach acid coming back to the oesophagus.

- **Hiatal Hernia**

A condition in which a portion of the stomach extends through the diaphragm and into the chest cavity. The diaphragm is the muscular barrier that separates the chest cavity from the abdominal cavity. When there is hiatal hernia, the stomach can push upward through the opening in the diaphragm, which may lead to GERD symptoms. This condition can sometimes cause discomfort and other digestive issues.



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- **Connective Tissue Disorders**

Connective Tissue Disorders such as scleroderma may cause GERD. Scleroderma is a condition in which the smooth muscles of the oesophagus are damaged and replaced with scar tissue. This replacement causes the oesophagus to become thinner and can lead to GERD and swallowing problems.

- **Delayed Stomach Emptying**

When stomach cannot empty properly due to poor motility or functional blockage, then the pressure inside the stomach increases causing GERD symptoms.

Some factors may worsen GERD, and include:

- **Tobacco Use or Inhaling Secondhand Smoke**

Tobacco use or inhaling secondhand smoke, decreased the lower oesophageal sphincter (LES) pressure. This pressure is protective as it keeps the acid in the stomach away from the oesophagus. When LES is reduced, stomach acid can come more easily up to the oesophagus and cause heartburn.

- **Eating Large Meals or Eating Late at Night**

Large meals tend to expand your stomach, putting pressure on the LES, causing GERD symptoms. Additionally, foods need time to pass through the stomach and into the digestive system after eating. Eating closer to bedtime causes heartburn symptoms.

- **Eating Certain Foods**

Foods such as spicy, fatty, and fried foods take longer to digest and therefore delay the stomach emptying. Moreover, fatty foods results in the release of cholecystokinin hormone. This hormone causes the LES to relax, inducing GERD symptoms.

- **Drinking Certain Beverages**

Alcohol and coffee cause LES to relax, leading to the passing of foods more easily, and therefore, GERD symptoms.

GERD COMMON SYMPTOMS

GERD commonly causes below symptoms:

- **Heartburn:** A distressing burning sensation located in the centre of your chest, behind your breastbone. This discomfort tends to move from the lower end of your breastbone towards your throat.
- **Regurgitation:** Stomach contents return up through the oesophagus and into your throat and mouth. This can result in perception of tasting food or stomach acid.

Other GERD symptoms include:

- Chest pain
- Nausea
- Swallowing problems or pain while swallowing
- Chronic cough or hoarseness

If GERD symptoms persist, then serious symptoms may appear, including:

- Loss of appetite
- Persistent vomiting
- Vomit that contains blood
- Stool that contains blood
- Unexplained weight loss

Certain medications that are taken to treat high blood pressure or asthma may worsen GERD symptoms.



GERD COMPLICATIONS

Over time, GERD can cause serious complications if left untreated. The most common include:

- **Oesophagitis**

Oesophagitis is the inflammation within the oesophagus, a condition that can lead to the formation of ulcers and bleeding in the oesophageal lining. Persistent oesophagitis increases the risk of developing oesophageal stricture and Barrett's oesophagus.

- **Oesophageal Stricture**

Oesophageal stricture is the narrowing of the oesophagus. As a result, the passage for food and liquids to move from the throat to the stomach becomes restricted, leading to difficulty in swallowing and other potential complications.

- **Barrett's Syndrome**

Barrett's oesophagus/syndrome is a condition in which the normal lining of the oesophagus is replaced by a type of issue that is similar to the lining of the intestine. This transformation is usually associated with long-term GERD.

Some people may develop complications in the mouth, throat, or lungs, and include:

- Asthma
- Chronic cough
- Hoarseness
- Laryngitis



STEPS FOR MANAGING PREVENTION

❖ **Maintain a healthy body weight or lose weight if necessary!**

Having excess weight is the biggest risk factor associated with GERD. Making the decision to lose weight is amongst the most beneficial lifestyle changes you can implement to decrease heartburn and lower the likelihood of other health issues.

❖ **Quit tobacco smoking!**

A study that was conducted amongst 141 former smokers, indicated that 43.9% reported less GERD symptoms one year after quitting. On the other hand, for those that did not quit, GERD symptoms did not improve with time. (Kohata Y. et al., 2016)

❖ **Be careful with your diet!**

Several items should be consumed with caution, and these include:

- Citrus fruits (orange, mandarin, lemon, grapefruit)
- Tomatoes
- Chocolate
- Fatty foods (fatty meat, fried foods, bacon, etc.)
- Spicy foods
- Carbonated beverages
- Sauces
- Alcohol
- Coffee
- Black tea

❖ **Do not lie down immediately after a meal!**

Since digesting food takes some time, it is best to avoid lying down after a meal as this will aggravate heartburn sensation. Wait for at least 3 hours before lying down or going to bed.

❖ **Chew slowly and thoroughly!**

Experts say that we should chew our food approximately 32 times before swallowing. Chewing properly makes the food digestion easier, hence GERD symptoms will be minimized.

❖ **Avoid tight-fitting clothing as much as possible!**

Wearing clothes that fit tightly around your waist puts pressure on your abdomen and the LES, worsening GERD symptoms.

❖ **Avoid doing exercise immediately after eating!**

Doing exercise immediately after eating, especially strenuous physical activity, can aggravate reflux symptoms.

❖ **Manage stress!**

Stress can contribute to GERD symptoms. Practice stress-reducing techniques such as deep breathing, meditation, or exercise to help manage stress levels.

❖ **Avoid large meals before sleeping!**

Large meals increase the likelihood of acid reflux or heartburn, especially if you lie down too soon after eating. The stomach acid can flow back into the oesophagus, causing irritation and discomfort. This can make it difficult to fall asleep or lead to disrupted sleep.



Avoiding large meals prior sleeping might be challenging, especially with night shifts. However, there are some strategies you can consider, minimizing the impact of large meals before sleep:

1. Try to have a larger meal during the first part of the night shift rather than closer to sleep. This gives the body more time to digest the food before sleep.
2. Choose lighter, easily digestible foods before sleep. Heavy, rich, and fatty meals can lead to discomfort and indigestion.
3. Eat well-balanced meals with more complex carbohydrates, lean proteins, and vegetables, whenever possible.



Seek medical advice if you are experiencing acid reflux, heartburn, or indigestion more than twice per week!

The fastest way to cure GERD is avoiding certain foods and drinks, lose weight if needed, quit tobacco use, and wait for 2–3 hours after eating to lie down.

GERD-SOOTHING RECIPE

Oven-roasted Chicken with Red Rice and Mixed Vegetables

Ingredients (10 servings):

- 1.8kg chicken breast
- 5g sweet paprika
- 20ml olive oil
- 100g chopped garlic
- 10g salt
- A dash of ground pepper
- 5g dry oregano
- 5g dry basil



Method:

1. Combine all the ingredients and marinade the chicken.
2. Bake the chicken until ready.

Note: Minimum internal cooking temperature for poultry 165°F (74°C) for 15 seconds.

Red rice

Ingredients (10 servings):

- 1kg red rice

Method:

1. Wash the rice and soak it at least 30 minutes in water.
2. Boil or steam the rice for approximately 20 minutes or until ready.

Note: The amount of water to be added might vary between different rice types, but usually is 2:1.



Mixed vegetables

Ingredients (10 servings):

- 1kg mixed vegetables
- 1g salt

Method:

1. Steam vegetables for 5 to 10 minutes.
2. Season to taste.

Note: Avoid overcooking the vegetables.



Nutritional Comments:

This recipe is healthy and well-balanced as it combines food from 3 main food groups (protein, carbohydrates, vegetables). Red rice is high in fibre; fibre makes you feel full so you are less likely to overeat which will then contribute to heartburn. Red rice can be replaced with buckwheat or brown rice if available.

*If a certain food is not available at your vessel, you might order.



Oceanic's Suggestions:

- ✓ Maintain a healthy body weight!
- ✓ Quit smoking!
- ✓ Manage stress!
- ✓ Follow a proper well-balanced diet high in fibre!
- ✓ Wear comfortable clothing!
- ✓ Consume fatty and spicy food in moderation!
- ✓ Try to avoid consuming large meals immediately prior sleeping!



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